

PROJECT NUMBER: 1756
PROJECT TITLE : Analytical Sensory Correlations
PROJECT LEADER: B. W. Good
PERIOD COVERED: August, 1984

I. SMOKE

A. Fractionation. The precision of the standardized fractionation method for TPM was evaluated by repeatedly analyzing Marlboro 85mm cigarettes. The data collected on the HP3357 LAS was transferred to the DEC 20/60 for BMDP analysis. BMDP1D (simple data description) was used to assess the variability of the raw peak areas. The results revealed that acidic and neutral fractions were more reproducible than basic fractions. The areas for major and minor peaks varied between 5 and 70%. Because of the wide MW distribution, internal standards could only correct for part of variability. In order to estimate the variability contributed by smoking, the same method will be applied to analysis of uncased burley tobacco.

B. Organic Gas Phase. Hand made Merit, Merit treated with glucosylamine, Marlboro, and Marlboro treated with rhamnosylamine were evaluated for organic gas phase. Based on a sample size of only four cigarettes, there were no significant statistical differences between the test and control cigarettes of both studies. Those that were so designated were within the limits of a normal distribution.

II. TOBACCO

Carotenoids. To aid the identification of tobacco carotenoids by LC/MS, a photodiode-array detector is on loan from HP to acquire some spectral data.

III. MISCELLANEOUS

LABSAM. The primary system of LABSAM is now operational!

IV. REPORTS, PRESENTATIONS AND MEMOS

Memo to R. H. Cox from B. W. Good and T. D. Crews, "Cigarettes treated with Glucosylamine and Rhamnosylamine", August 28, 1984.



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